

CLAIMS

What is claimed is:

- 1 1. A memory circuit, comprising:
2 a first electrode formed on a support surface, the first electrode having a first
3 electrode surface that intersects the support surface;
4 a spacer positioned on the support surface adjacent to the first electrode surface;
5 and
6 a ferroelectric layer formed on the first electrode and the spacer.
- 1 2. The memory circuit of claim 1, further comprises a second electrode formed on
2 the ferroelectric layer opposite of the first electrode.
- 1 3. The memory circuit of claim 1, wherein the spacer comprises of an insulation
2 material.
- 1 4. The memory circuit of claim 1, wherein the ferroelectric layer comprises of a
2 polymer.
- 1 5. The memory circuit of claim 1, wherein the support surface comprises of
2 insulation material.
- 1 6. The memory circuit of claim 1, wherein a portion of the spacer nearest to the first
2 electrode surface has a height about equal to a height of the first electrode, the height of
3 the first electrode being a distance between the support surface and a second electrode
4 surface of the first electrode, the second electrode surface being substantially parallel to
5 the support surface.
- 1 7. The memory circuit of claim 1, wherein the spacer is in contact with the first
2 electrode surface.

1 8. The memory circuit of claim 1, wherein the spacer is separated from the first
2 electrode surface.

1 9. The memory circuit of claim 1, wherein the support surface is located on a die.

1 10. The memory circuit of claim 1, wherein the spacer is formed for a selected one of
2 moving a transition point away from the first electrode, and reducing sharpness of a
3 transition.

1 11. The memory circuit of claim 1, wherein the first electrode comprises first and
2 second portions, the first portion comprising a first material that is non-reactive to the
3 ferroelectric layer and located at a second electrode surface of the first electrode, the
4 second electrode surface being parallel to the support surface, and the second portion
5 comprising a second material that is more conductive than said first material and
6 located between the first portion and the support surface.

1 12. The memory circuit of claim 11, wherein the spacer is formed against the first
2 electrode surface such that the spacer isolates the second portion from the ferroelectric
3 layer.

1 13. A method, comprising:
2 forming a first electrode on a support surface, the first electrode having a first
3 electrode surface that intersects the support surface;
4 forming a spacer positioned on the support surface adjacent to the first electrode
5 surface; and
6 forming a ferroelectric layer on the first electrode and the spacer.

1 14. The method of claim 13, further comprises forming a second electrode on the
2 ferroelectric layer opposite of the first electrode.

1 15. The method of claim 13, wherein said forming of a spacer comprises forming a
2 portion of the spacer nearest to the first electrode surface with a height about equal to a
3 height of the first electrode, the height of the first electrode being a distance between
4 the support surface and a second electrode surface of the first electrode, and the
5 second electrode surface being substantially parallel to the support surface.

1 16. The method of claim 13, wherein said forming of a spacer comprises forming the
2 spacer by plasma enhanced chemical vapor deposition.

1 17. The method of claim 13, wherein said forming of a spacer comprises forming the
2 spacer by depositing a spacer material on and around the first electrode and removing
3 spacer material from a second electrode surface of the first electrode that is parallel to
4 the support surface.

1 18. The method of claim 17, wherein the removing of the spacer material from the
2 second electrode surface comprises removing the spacer material by a selected one of
3 dry and wet etch.

1 19. The method of claim 13, wherein said forming of a spacer comprises forming the
2 spacer for a selected one of moving a transition point away from the first electrode and
3 reducing sharpness of a transition.

1 20. The method of claim 13, wherein said forming of a ferroelectric layer comprises
2 forming the ferroelectric layer by spincoating.

1 21. A system, comprising:
2 an integrated circuit, including
3 a first electrode formed on a support surface, the first electrode having a
4 first electrode surface that intersects the support surface,
5 a spacer positioned on the support surface adjacent to the first electrode
6 surface, and

7 a ferroelectric layer formed on the first electrode and the spacer;
8 a bus coupled to the integrated circuit; and
9 a networking interface coupled to the bus.

1 22. The system of claim 21, wherein the integrated circuit further comprises a second
2 electrode formed on the ferroelectric layer opposite of the first electrode.

1 23. The system of claim 21, wherein the spacer comprises an insulation material.

1 24. The system of claim 21, wherein the ferroelectric layer comprises a polymer.

1 25. The system of claim 21, wherein the support surface comprises an insulation
2 material.